

# M 6.8, 53 km WSW of Oukamedene, Morocco

Origin Time: 2023-09-08 22:11:01 UTC (Fri 23:11:01 local)  
Location: 31.0549° N 8.3887° W Depth: 19.0 km

**PAGER Version 15**

Created: 1 week, 0 days after earthquake

### Estimated Fatalities

Magnitude Range	Estimated Fatalities
1-2	10%
2-3	28%
3-4	35%
4-5	20%
5-6	6%

### Estimated Economic Losses

Magnitude Range	Estimated Economic Losses (USD Millions)
1-2	7%
2-3	25%
3-4	37%
4-5	23%
5-6	7%

Red alert for shaking-related fatalities and economic losses. High casualties and extensive damage are probable and the disaster is likely widespread. Past red alerts have required a national or international response.

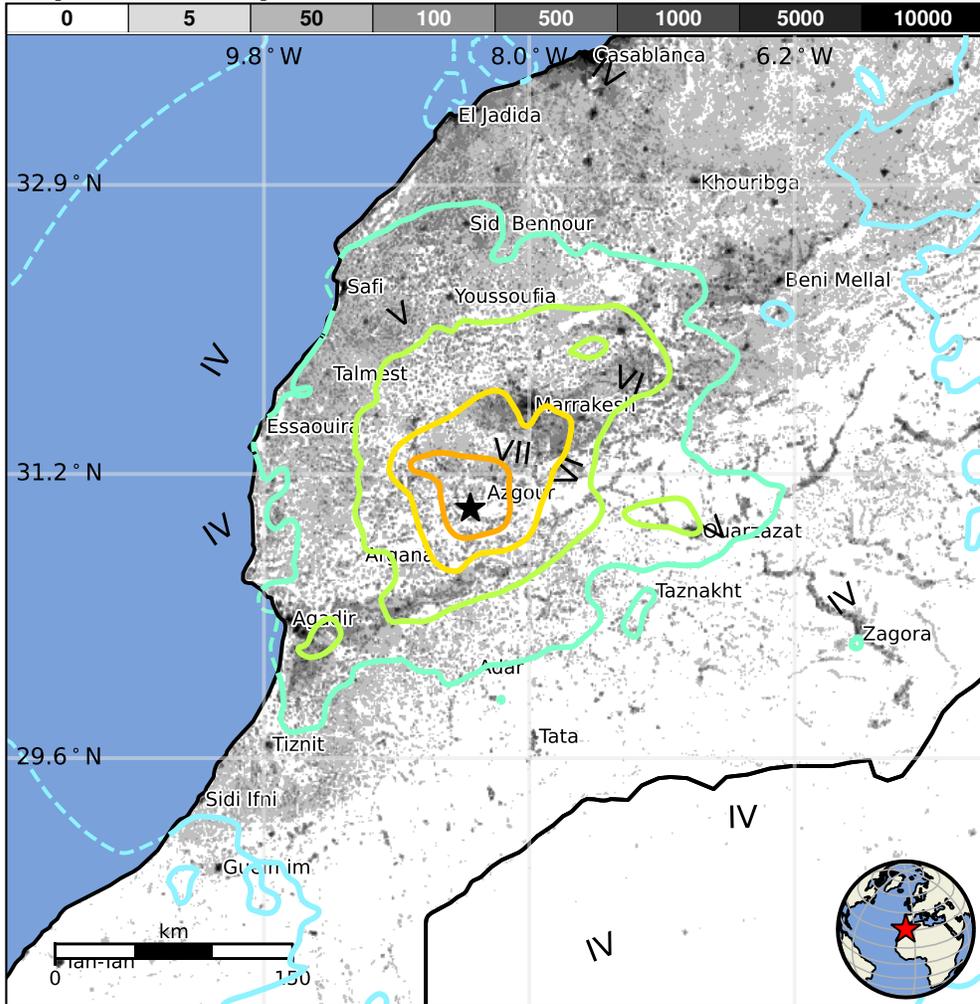
Estimated economic losses are 0-8% GDP of Morocco.

## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	—*	721k*	10,602k*	4,612k	3,226k	873k	156k	0	0	
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+	
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme	
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

\*Estimated exposure only includes population within the map area.

## Population Exposure



## Structures

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are adobe block and unreinforced brick with mud construction.

## Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1992-10-23	390	5.5	V(72k)	2
1992-10-30	387	5.6	V(71k)	—
1960-02-29	146	5.8	IX(244k)	13k

## Selected City Exposure

from GeoNames.org

MMI	City	Population
VIII	Amizmiz	<1k
VIII	<b>Azgour</b>	<1k
VIII	Adassil	<1k
VIII	Tizguine	<1k
VII	Moulay Brahim	<1k
VII	Sidi Abdallah Ghiat	<1k
VI	<b>Marrakesh</b>	839k
V	<b>Agadir</b>	698k
V	<b>Beni Mellal</b>	166k
IV	<b>Casablanca</b>	3,145k
III	<b>Guelmim</b>	98k

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.  
<https://earthquake.usgs.gov/earthquakes/eventpage/us7000kufc#pager>

bold cities appear on map.

(k=x1000)

Event ID: us7000kufc